METHODS We present a relatively uncommon case of renovascular hypertension in a 61-year-old male with a history of unsatisfactory blood pressure level for 4 months and being diagnosed as intractable hypertension. Selective renal angiography by brachial artery was performed and the result revealed a normal renal artery on the left and two renal arteries supplying the right kidney, in which upper right renal artery (accessory artery) was associated with 85% stenosis. Percutaneous transluminal renal angioplasty (PTRA) was successfully performed with the stent of Promus Element 4.0*16 mm being implanted in the target artery after predilatation.

RESULTS The patient's blood pressure normalized over a period of 6 months only using a single antihypertensive medication (rather than 3 medications).

CONCLUSIONS Stenosis in an accessory renal artery can be responsible fpertension. Renovascular intervention treatment by brachial artery will be or intractable hya good choice with little injury and reliable effects.

GW26-e0107

Relationship between Polymorphisms of Furin Gene and Metabolic Syndrome in Uygur Population of Xinjiang

Dilinigeer Tuerxun, Nanfang Li, Xiaoguang Yao
The Center of Hypertension of the People's Hospital of Xinjiang Uygur Autonomous Region, Hypertension Institute of Xinjiang

OBJECTIVES Furin protease enzyme is a protein transformation inside the cell. Metabolc syndrome (Mets) is a complex disease influenced by multiple genetic and environmental factors. The Uygur ethnic group is characterized by a relatively high prevalence of Mets. Previous research indicates that the FURIN gene may play a pivotal role in the renin-angiotensin system, maintaining the sodium electrolyte balance and glucose metabolism, lipid metabolism. Because these systems influence Arteriosclerosis, we considered FURIN as a candidate gene for Arteriosclerosis.The purpose of this study was to systematically investigate the association between genetic variations in the FURIN gene and Mets in a Xinjiang Uygur population.

METHODS To investigate the relationship between Furin gene polymorphism and metabolc syndrome in Xinjiang Uygur population. Methods: according to different Waist circumference, body mass index, blood glucose level, blood pressure, blood lipids levels,1134 individual in xinjiang hetian area were divided into 2 groups that is 707 patients with MetS and 474 non-MetS subjects. selecting representative variant in application of TaqMan-PCR in a large population of genotype identification and case-control study. Based on HapMap and NCBI databases we selected the polymorphism rs2071410 SNP (htSNP) sufficiently covering the genetic variation of the whole gene. We therefore examined the association between rs2071410 Furin and in the Xinjiang Uygur population in two independent study populations; The genotype and allele frequencies and relative clinic data were compared among groups.

RESULTS The rs2071410 variant was associated with MetS in Uygur subjects (P=0.010). Logistic regression analysis indicated that TT genotype of rs2071410 variation is a risk factor for MetS (OR=1.471, P=0.013). Further analysis found that the level The blood pressure, blood sugar, LDL related to homozygote TT were higher than CC and CT, that is to say the role of homozygote TT was Increase the risk of MetS

CONCLUSIONS Our study suggested that the rs2071410 polymorphism of Furin gene is associated with Mets in ethnic Uygur population from Xinjiang, China.

GW26-e2255

Morning Blood Pressure Surge is Associated with Cystatin C in Essential Hypertensive Patients

Dengfeng Gao, Huijuan Kou, Rui Ma
Second affiliated hospital of Xi'an Jiaotong University

OBJECTIVES Morning blood pressure surge (MBPS), defined as a morning SBP increase from sleep SBP, is considered to be an independent risk factor for cardiovascular diseases. Whether MBPS was associated with cystatin C, a marker of early renal injury has not been previously studied.

METHODS We included 673 hypertensive patients who had ambulatory blood pressure monitoring at our hospital from 2013 to 2014. Mean age was 59.4 +/-12.1 years. 69% were receiving antihypertensive drug treatment. Kidney function was evaluated by measuring serum cystatin C. Glomerular filtration rate (GFR) was estimated using the abbreviated Modification of Diet in Renal Disease equations. The ambulatory BP was measured non-invasively for 24h by the Spacelab devices programmed to measure BP every 20 min during daytime and every 30 min during nighttime.

RESULTS The highest quartile of cystatin C distribution showed an older age and worse parameters of renal function (cystatin C, serum creatinine and eGFR) than the other groups. No differences for gender or diabetes were found. MBPS was higher in the fourth quartile compared to the fist one (P <0.01). The relationship between cystatin C, as well as eGFR, with MBPS was statistically significant as renal function comes down (r=0.34 and r=0.41, all P <0.001). Multivariate regression analysis, MBPS was independently associated with age (P =0.01), dipping status (P <0.001) and cystatin (P <0.001).

CONCLUSIONS MBPS was independently associated with serum cystatin C level in essential hypertensive patients.

GW26-e0676

The impact of different periods of dynamic pulse pressure index on the target organ damage in hypertensive patients

Xudong Wang, Yanchun Ding
Department of Cardiology V, the Second Affiliated Hospital of Dalian Medical University

OBJECTIVES To explore the impact of different periods the dynamic pulse pressure index (PPI) on hypertensive target organ damage (TOD).

METHODS 553 hypertensive patients were enrolled. 24-hour, day and night PPI were calculated based on 24-hour ambulatory blood pressure measurement results. Each period of PPI were divided into PPI<0.4 group and PPI≥0.4 group. All patients were examined by echocardiography, incidence of the TOD of heart, brain, carotid, renal and retinal in hypertensive patients in 24-hour, daytime and nighttime PPI≥0.4 group were higher than that of the PPI<0.4 group (P<0.05). 4. Correlation analysis shows that the evidences of heart, brain, carotid, renal and retinal damage are positively correlated with 24-hour, day and night PPI. 5. Stepwise regression analysis shows that in hypertensive patients increasing daytime PPI is independent risk factor for left ventricular hypertrophy; nighttime PPI increasing is an independent risk factor for increasing of IMT and CysC.

CONCLUSIONS 1. PPI has gender difference. Female is predominant in PPI≥0.4 group. 2. The 24-hour, daytime and nighttime PPI of hypertensive patients with TOD are significantly higher than those without TOD. 3.The incidence of different hypertensive TOD in 24-hour, daytime and nighttime PPI≥0.4 group is higher than that in PPI<0.4 group. 4. There are different effects of different periods PPI on hypertensive TOD, while increasing daytime PPI is an independent risk factor for left ventricular hypertrophy and increasing nighttime PPI is an independent risk factor for IMT thickening and kidney damage.

GW26-e0802

Decreased Soluble VEGFR2 and Increased Visfatin Expressions in Hypertensive and Hypertensive Diabetic Patients

Shujie Yu,[1] Hui Zhang,[2] Min Wang,[1] Bin Zhou,[1] Lin Wu,[1] Zhiming Song,[1] Lin Chen,[1] Xiaoxian Qian[1,3]
[1]Department of Cardiology, The Third Affiliated Hospital, Sun Yat-sen University; [2]Department of ultrasonography, The Third Affiliated Hospital, Sun Yat-sen University; [3]Institute for Integrated Traditional Chinese and Western Medicine, Sun Yat-sen University

OBJECTIVES To evaluate the expressions of soluble vascular endothelial growth factor receptor 2 (sVEGFR2) and visfatin in plasma of hypertensive and hypertensive diabetic patients. And to explore the correlation between sVEGFR2 and visfatin in the whole study population.

METHODS In this cross-sectional study, eighty-eight cases were enrolled, which were divided into hypertensive group (n=31), hypertensive diabetic group (n=31) and control group (n=26). Blood pressure was obtained from each participant with mercury sphygmomanometer. The expressions of sVEGFR2 and visfatin were measured by ELISA. Serum lipid profile, glucose and glycosylated hemoglobin A1C (GHbA1c) levels were detected.

RESULTS The levels of total cholesterol (TC) and body mass index (BMI) were significantly higher in the hypertensive group than those in control group ($P<0.05$). The levels of TC, triglyceride (TG), low density lipoprotein cholesterol (LDL-C), BMI, waist circumference were significantly higher in the hypertensive diabetic group than